

**EXHIBIT C**

**Product Description**  
**Trevira® Spunbound Type 1620**

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Trevira® Spunbound Type 1620

TREVIRA® SPUNBOUND TYPE 1620 IS A 100% CONTINUOUS FILAMENT POLYESTER NONWOVEN NEEDLEPUNCHED HEAT BONDED ENGINEERING FABRIC. THE FABRIC IS RESISTANT TO BIOLOGICAL AND NATURALLY ENCOUNTERED CHEMICALS, ALKALIES, ACIDS, AND ULTRAVIOLET LIGHT EXPOSURE. TREVIRA® SPUNBOUND TYPE 1620 CONFORMS TO THE PROPERTY VALUES LISTED IN THE FOLLOWING TABLE:

| FABRIC PROPERTY                 | UNIT              | TEST METHOD  | MINIMUM TEST VALUES |
|---------------------------------|-------------------|--------------|---------------------|
| FABRIC WEIGHT                   | OZ/SY             | ASTM D- 5261 | 5.7                 |
| FABRIC THICKNESS                | MILS              | ASTM D- 5199 | 37                  |
| GRAB STRENGTH (MD/CD)           | LBS               | ASTM D- 4632 | 160                 |
| GRAB ELONGATION (MD/CD)         | %                 | ASTM D- 4632 | 60                  |
| TRAPEZOID TEAR STRENGTH (MD/CD) | LBS               | ASTM D- 4533 | 50                  |
| PUNCTURE RESISTANCE             | LBS               | ASTM D- 4833 | 70                  |
| MULLEN BURST STRENGTH           | PSI               | ASTM D- 3786 | 240                 |
| WATER FLOW RATE                 | GPM/SF            | ASTM D- 4491 | 100                 |
| PERMITTIVITY                    | SEC <sup>-1</sup> | ASTM D- 4491 | 1.30                |
| PERMEABILITY                    | CM/SEC            | ASTM D- 4491 | 0.12                |
| AOS                             | SIEVE SIZE        | ASTM D- 4751 | 100                 |

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## G E O T E X T I L E S

| Product Name<br>(Structure [1]/<br>Polymer Type [2]) | M288 Transportation-Related Applications   |   |                                     |                                     |  |  |   |   |                             |  | Reinforcement Applications                      |                              |  |                 |
|--|--|---|-------------------------------------|-------------------------------------|--|--|---|---|-----------------------------|--|---|------------------------------|--|-----------------|
|  | Filtration/Hydraulic Properties  |   |                                     |                                     |  | Physical Properties                          |   |   |                             |  | Wide Width Tensile Properties                   |                              |  |                 |
|  | Mass Per<br>Unit Area<br>ASTM<br>D 5261<br>g/m <sup>2</sup><br>(oz/yd <sup>2</sup> ) | Percent<br>Open Area<br>ASTM<br>D 2125<br>% | Apparent<br>Opening<br>Size<br>sec. | Permittivity<br>ASTM D 4491<br>sec. | Trapezoid<br>Flow Rate<br>(f <sub>H</sub> or f <sub>C</sub> ) [3]<br>mm <sup>3</sup> /min/m <sup>3</sup> | Puncture<br>Strength<br>ASTM<br>D 4833<br>kN | Tearing<br>Strength<br>ASTM<br>D 4533<br>kN | Grab Tensile/<br>Elongation<br>ASTM<br>D 4632<br>kN | Strength @<br>5% Strain [5] | Ultimate Strength %<br>(f <sub>ult</sub> ) [5] | Creep Limited<br>Strength<br>ASTM D 5262<br>[6] | T <sub>allow</sub><br>(lb)/% | Other<br>Manufacturer's<br>Suggested<br>Applications [8] |                 |
| Type 3151<br>NW-PP                                   | 51<br>(1.5)  | NA  | 0.84<br>(20/30)                     | 1.54482<br>(110), FH                | 45<br>(10)   | 67<br>(15)                                   | 156<br>(35)/60                              | NP  | NP                          | NP   | NP  | NA                           | NA   | SP              |
| Type 3201<br>NW-PP                                   | 61<br>(1.8)  | NA  | 0.59<br>(30)                        | 1.03056<br>(75), FH                 | 80<br>(18)   | 111<br>(25)                                  | 267<br>(60)/60                              | NP  | NP                          | NP   | NP  | NA                           | NA   | SP, D           |
| Type 3301<br>NW-PP                                   | 99<br>(2.9)  | NA  | 0.30<br>(50)                        | 0.8/0.037<br>(50), FH               | 11<br>(25)   | 156<br>(35)                                  | 534<br>(120)/60                             | NP  | NP                          | NP   | NP  | NA                           | NA   | SP, SF, F, D    |
| Type 3341<br>NW-PP                                   | 112<br>(3.3)   | NA  | 0.25<br>(60)                        | 0.7/852<br>(70), FH                 | 134<br>(30)  | 178<br>(40)                                  | 534<br>(120)/60                             | NP  | NP                          | NP   | NP  | NA                           | NA   | SP, F, D        |
| Type 3401<br>NW-PP                                   | 133<br>(3.9)   | NA  | 0.21<br>(70)                        | 0.7/241<br>(55), FH                 | 178<br>(40)  | 267<br>(60)                                  | 578<br>(130)/60                             | 3   | SP, ST, D                   | NP   | NP  | NA                           | NA   | SP, ST, F, D, E |
| Type 3501<br>NW-PP                                   | 163<br>(4.8)   | NA  | 0.20<br>(70)                        | 0.5/1834<br>(45), FH                | 249<br>(56)  | 267<br>(60)                                  | 712<br>(160)/60                             | 2   | SP, ST, D                   | NP   | NP  | NA                           | NA   | F, D, SP, ST, E |
| Type 3601<br>NW-PP                                   | 197<br>(5.8)   | NA  | 0.10<br>(140)                       | 0.10/611<br>(15), FH                | 289<br>(65)  | 400<br>(90)                                  | 1068<br>(240)/60                            | 2   | SP, ST, D                   | NP   | NP  | NA                           | NA   | F, D, SP, ST, E |

## BBA Nonwovens

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[1] NW = Nonwoven, -P = needlepunched, -h = calendered  
W = Woven, -sf = slit film  
K = Knitted  
[2] PP = Polypropylene  
CH = Test is run by the falling head method  
SF = Separation  
D = Drainage

f = Filtration  
A/O = Asphalt overlay  
MD = Machine direction  
XD = Cross-machine direction

[3] For a minimum of 10,000 hours, extrapolated to a 75-year time period  
T<sub>allow</sub> =  $\frac{T_{dt}}{RF_Cr \times RF_D \times RF_D}$

**NOTE:** This equation does not include other reduction factors which may apply to design. Reduction factors are site specific and should be reviewed on a per project basis. Contact the manufacturer for recommendations.

[4] R = Reinforcement  
P = Protection

Rf<sub>Cr</sub> = Reduction factor for creep  
RF<sub>D</sub> = Reduction factor for installation damage  
RF<sub>D</sub> = Reduction factor for durability

RC = Reinforcement Composite  
SP = Separation  
ST = Stabilization  
F = Filtration  
A/O = Asphalt overlay

[5] MD = Asphalt overlay  
XD = Cross-machine direction  
ST = Stabilization  
F = Filtration  
A/O = Asphalt overlay

[6] = ASTM E 154  
[B] = ASTM D 882  
MA = Not provided by manufacturer  
NP = Not applicable per manufacturer